

Definition of Industry Sectors Used in the Survey

| INDUSTRY | | |
|----------|------------------|--|
| SIC | NAME | MAJOR SUB GROUPS (at 2 Digit SIC) |
| 01 | Agriculture-Food | AGRICULTURAL PRODUCTION CROPS |
| 02 | Agriculture-Food | AGRICULTURAL PRODUCTION LIVESTOCK |
| 07 | Agriculture-Food | AGRICULTURAL SERVICES |
| 08 | Agriculture-Food | FORESTRY |
| 09 | Agriculture-Food | FISHING, HUNTING, AND TRAPPING |
| 20 | Agriculture-Food | FOOD AND KINDRED PRODUCTS |
| 10 | Construction | METAL MINING |
| 12 | Construction | COAL MINING |
| 13 | Construction | OIL AND GAS EXTRACTION |
| 14 | Construction | NONMETALLIC MINERALS, EXCEPT FUELS |
| 16 | Construction | HEAVY CONSTRUCTION, EX. BUILDING |
| 17 | Construction | SPECIAL TRADE CONTRACTORS |
| 28 | High-Tech | CHEMICALS AND ALLIED PRODUCTS |
| 35 | High-Tech | INDUSTRIAL MACHINERY AND EQUIPMENT |
| | | ELECTRONIC AND OTHER ELECTRIC |
| 36 | High-Tech | EQUIPMENT |
| 38 | High-Tech | INSTRUMENTS AND RELATED PRODUCTS |
| 48 | High-Tech | COMMUNICATION |
| 73 | High-Tech | BUSINESS SERVICES |
| 29 | Manufacturing | PETROLEUM AND COAL PRODUCTS |
| 30 | Manufacturing | RUBBER AND MISC PLASTICS PRODUCTS |
| 31 | Manufacturing | LEATHER AND LEATHER PRODUCTS |
| 32 | Manufacturing | STONE, CLAY, AND GLASS PRODUCTS |
| 33 | Manufacturing | PRIMARY METAL INDUSTRIES |
| 34 | Manufacturing | FABRICATED METAL PRODUCTS |
| 37 | Manufacturing | TRANSPORTATION EQUIPMENT |
| | | MISCELLANEOUS MANUFACTURING |
| 39 | Manufacturing | INDUSTRIES |
| | | LOCAL AND INTERURBAN PASSENGER |
| 41 | Other | TRANSIT |
| 42 | Other | TRUCKING AND WAREHOUSING |
| 44 | Other | WATER TRANSPORTATION |
| 45 | Other | TRANSPORTATION BY AIR |
| 46 | Other | PIPELINES, EXCEPT NATURAL GAS |
| 47 | Other | TRANSPORTATION SERVICES |
| 49 | Other | ELECTRIC, GAS, AND SANITARY SERVICES |
| 60 | Other | DEPOSITORY INSTITUTIONS |
| 61 | Other | NONDEPOSITORY INSTITUTIONS |
| 62 | Other | SECURITY AND COMMODITY BROKERS |
| 63 | Other | INSURANCE CARRIERS |
| 64 | Other | INSURANCE AGENTS, BROKERS, AND SERVICE |
| 65 | Other | REAL ESTATE |
| 67 | Other | HOLDING AND OTHER INVESTMENT OFFICES |
| 70 | Services | HOTELS AND OTHER LODGING PLACES |
| 72 | Services | PERSONAL SERVICES |
| 73 | Services | BUSINESS SERVICES |
| 75 | Services | AUTO REPAIR SERVICES AND PARKING |
| 76 | Services | MISCELLANEOUS REPAIR SERVICES |
| 78 | Services | MOTION PICTURES |
| 79 | Services | AMUSEMENT AND RECREATION SERVICES |
| 80 | Services | HEALTH SERVICES |
| 81 | Services | LEGAL SERVICES |

| | | |
|----|----------|--|
| 82 | Services | EDUCATIONAL SERVICES |
| 83 | Services | SOCIAL SERVICES |
| | | MUSEUMS, BOTANICAL, ZOOLOGICAL |
| 84 | Services | GARDENS |
| 86 | Services | MEMBERSHIP ORGANIZATIONS |
| 87 | Services | ENGINEERING AND MANAGEMENT SERVICES |
| 89 | Services | SERVICES, NEC |
| 50 | Trade | WHOLESALE TRADE DURABLE GOODS |
| 51 | Trade | WHOLESALE TRADE NONDURABLE GOODS |
| 52 | Trade | BUILDING MATERIALS AND GARDEN SUPPLIES |
| 53 | Trade | GENERAL MERCHANDISE STORES |
| 54 | Trade | FOOD STORES |
| 55 | Trade | AUTO DEALERS AND SERVICE STATIONS |
| 56 | Trade | APPAREL AND ACCESSORY STORES |
| 57 | Trade | FURNITURE AND HOMEFURNISHING STORES |
| 58 | Trade | EATING AND DRINKING PLACES |
| 59 | Trade | MISCELLANEOUS RETAIL |

Note: Boeing was grouped in Manufacturing rather than Hi-tech.

Question 1. Percent of Firms That Hired New Employees in the Last 12 Months (All Firms)

| INDUSTRIES | Employers Hired Someone Last 12 months | | Employers Looking to Hire Someone Last 12 months | |
|--|--|---------|--|---------|
| | | | | |
| Ag-Food | 59% | 3,412 | 61% | 3,544 |
| Construction | 55% | 8,619 | 62% | 9,581 |
| High-Tech | 52% | 1,812 | 70% | 2,447 |
| Manufacturing | 63% | 4,265 | 64% | 4,373 |
| Services | 49% | 44,458 | 51% | 45,565 |
| Trade | 77% | 45,402 | 79% | 46,346 |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 68% | 22,522 | 69% | 22,616 |
| All Industries | 61% | 130,490 | 63% | 134,472 |

Question 3: In the last 12 months, did your firm/organization have any difficulty finding qualified applicants for any of the jobs you were trying to fill?

| INDUSTRIES | Percentage Among Employers Attempting to Hire | Number of Employers with Difficulty | Percentage Among all Employers | Total Number of Employers |
|--|--|--|---|--|
| Ag-Food | 67% | 2,384 | 41% | 5,779 |
| Construction | 71% | 6,747 | 44% | 15,438 |
| High-Tech | 56% | 1,379 | 39% | 3,513 |
| Manufacturing | 55% | 2,397 | 35% | 6,807 |
| Services | 53% | 23,991 | 27% | 89,962 |
| Trade | 42% | 19,495 | 33% | 58,978 |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 56% | 12,632 | 38% | 32,998 |
| All Industries | 51% | 69,025 | 32% | 213,475 |

Question 4: How did your firm/organization respond to the difficulty finding qualified applicants?

| INDUSTRIES | EMPLOYERS | Did not fill the opening | Hired a less qualified | Outsourced the work / service | Increased overtime for employees | Increased recruiting efforts | Increased wages to attract applicants |
|--|---------------------------------|--------------------------|------------------------|-------------------------------|----------------------------------|------------------------------|---------------------------------------|
| Ag-Food | AMONG EMPLOYERS WITH DIFFICULTY | 38% | 67% | 12% | 60% | 58% | 26% |
| | AMONG ALL EMPLOYERS | 14% | 24% | 4% | 22% | 21% | 9% |
| Construction | AMONG EMPLOYERS WITH DIFFICULTY | 52% | 86% | 28% | 54% | 59% | 54% |
| | AMONG ALL EMPLOYERS | 12% | 18% | 6% | 14% | 15% | 8% |
| High-Tech | AMONG EMPLOYERS WITH DIFFICULTY | 46% | 55% | 44% | 56% | 59% | 38% |
| | AMONG ALL EMPLOYERS | 8% | 10% | 8% | 10% | 10% | 7% |
| Manufacturing | AMONG EMPLOYERS WITH DIFFICULTY | 31% | 57% | 22% | 65% | 50% | 20% |
| | AMONG ALL EMPLOYERS | 8% | 15% | 6% | 17% | 13% | 5% |
| Services | AMONG EMPLOYERS WITH DIFFICULTY | 31% | 59% | 17% | 46% | 43% | 24% |
| | AMONG ALL EMPLOYERS | 8% | 15% | 4% | 12% | 11% | 6% |
| Trade | AMONG EMPLOYERS WITH DIFFICULTY | 44% | 50% | 15% | 46% | 48% | 24% |
| | AMONG ALL EMPLOYERS | 13% | 15% | 4% | 13% | 14% | 7% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | AMONG EMPLOYERS WITH DIFFICULTY | 47% | 74% | 31% | 51% | 71% | 33% |
| | AMONG ALL EMPLOYERS | 16% | 25% | 10% | 17% | 24% | 11% |
| All Industries | AMONG EMPLOYERS WITH DIFFICULTY | 40% | 62% | 20% | 48% | 52% | 28% |
| | AMONG ALL EMPLOYERS | 12% | 18% | 6% | 14% | 15% | 8% |

Question 6i. Percent Having Difficulty Finding Applicants With PhD/Professional Degree

| INDUSTRY | AMONG ALL EMPLOYERS | |
|---------------------------------|---------------------|---------------|
| | Had Difficulty | No Difficulty |
| Ag-Food | 2% | 3% |
| Construction | 1% | 0% |
| High-Tech | 3% | 0% |
| Manufacturing | 1% | 0% |
| Services | 2% | 0% |
| Trade | 1% | 0% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 4% | 0% |
| All Industries | 2% | 0% |

Question 7: How much difficulty has your firm/organization had finding employees with the following skills?

| | | |
|--|--|--|
| | | |
|--|--|--|

Question 7a. Percent Having Difficulty Finding Applicants With Sufficient Reading Skills

| INDUSTRY | AMONG ALL EMPLOYERS | | | | |
|---------------------------------|---------------------|---------------|--|--|--|
| | Had Difficulty | No Difficulty | | | |
| Ag-Food | 14% | 13% | | | |
| Construction | 7% | 24% | | | |
| High-Tech | 6% | 9% | | | |
| Manufacturing | 6% | 11% | | | |
| Services | 6% | 13% | | | |
| Trade | 3% | 22% | | | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 14% | 16% | | | |
| All Industries | 7% | 17% | | | |

**Question 7b. Percent Having Difficulty Finding Applicants
With Sufficient Writing Skills**

| INDUSTRY | AMONG ALL EMPLOYERS | | | | |
|------------------------------------|---------------------|---------------|--|--|--|
| | Had Difficulty | No Difficulty | | | |
| Ag-Food | 17% | 9% | | | |
| Construction | 8% | 17% | | | |
| High-Tech | 10% | 4% | | | |
| Manufacturing | 8% | 7% | | | |
| Services | 9% | 9% | | | |
| Trade | 14% | 10% | | | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 18% | 11% | | | |
| All Industries | 12% | 10% | | | |
| | | | | | |

**Question 7c. Percent Having Difficulty Finding Applicants
With Sufficient Math Skills**

| INDUSTRY | AMONG ALL EMPLOYERS | | | | |
|------------------------------------|---------------------|---------------|--|--|--|
| | Had Difficulty | No Difficulty | | | |
| Ag-Food | 20% | 7% | | | |
| Construction | 15% | 19% | | | |
| High-Tech | 7% | 6% | | | |
| Manufacturing | 12% | 6% | | | |
| Services | 11% | 8% | | | |
| Trade | 12% | 12% | | | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 13% | 16% | | | |
| All Industries | 12% | 11% | | | |
| | | | | | |

**Question 7d. Percent Having Difficulty Finding Applicants
With Sufficient Job-Specific Skills**

| INDUSTRY | AMONG ALL EMPLOYERS | | | | |
|------------------------------------|---------------------|---------------|--|--|--|
| | Had Difficulty | No Difficulty | | | |
| Ag-Food | 29% | 1% | | | |
| Construction | 33% | 2% | | | |
| High-Tech | 15% | 1% | | | |
| Manufacturing | 19% | 1% | | | |
| Services | 17% | 3% | | | |
| Trade | 23% | 2% | | | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 29% | 2% | | | |
| All Industries | 22% | 2% | | | |
| | | | | | |

**Question 7e. Percent Having Difficulty Finding
Applicants With Sufficient Computer Skills**

| INDUSTRY | AMONG ALL EMPLOYERS | | | | |
|------------------------------------|---------------------|---------------|--|--|--|
| | Had Difficulty | No Difficulty | | | |
| Ag-Food | 16% | 4% | | | |
| Construction | 11% | 7% | | | |
| High-Tech | 11% | 4% | | | |
| Manufacturing | 6% | 6% | | | |
| Services | 10% | 3% | | | |
| Trade | 12% | 9% | | | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 20% | 7% | | | |
| All Industries | 12% | 6% | | | |

Question 7f. Percent Having Difficulty Finding Applicants With Sufficient Team Work Skills

| INDUSTRY | AMONG ALL EMPLOYERS | | | | |
|---------------------------------|---------------------|---------------|--|--|--|
| | Had Difficulty | No Difficulty | | | |
| Ag-Food | 22% | 6% | | | |
| Construction | 20% | 9% | | | |
| High-Tech | 11% | 4% | | | |
| Manufacturing | 10% | 7% | | | |
| Services | 17% | 3% | | | |
| Trade | 19% | 6% | | | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 21% | 8% | | | |
| All Industries | 18% | 5% | | | |
| | | | | | |

Question 7g. Percent Having Difficulty Finding Applicants With Sufficient Problem-Solving Skills

| INDUSTRY | AMONG ALL EMPLOYERS | | | | |
|---------------------------------|---------------------|---------------|--|--|--|
| | Had Difficulty | No Difficulty | | | |
| Ag-Food | 28% | 2% | | | |
| Construction | 26% | 9% | | | |
| High-Tech | 13% | 3% | | | |
| Manufacturing | 14% | 3% | | | |
| Services | 18% | 4% | | | |
| Trade | 21% | 4% | | | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 23% | 5% | | | |
| All Industries | 20% | 4% | | | |
| | | | | | |

**Question 7h. Percent Having Difficulty Finding Applicants
With Sufficient Communication Skills**

| INDUSTRY | AMONG ALL EMPLOYERS | | | | |
|------------------------------------|---------------------|---------------|--|--|--|
| | Had Difficulty | No Difficulty | | | |
| Ag-Food | 27% | 3% | | | |
| Construction | 24% | 11% | | | |
| High-Tech | 13% | 1% | | | |
| Manufacturing | 14% | 3% | | | |
| Services | 19% | 3% | | | |
| Trade | 16% | 9% | | | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 23% | 6% | | | |
| All Industries | 19% | 6% | | | |

**Question 7i. Percent Having Difficulty Finding
Applicants With Good Work Habits**

| INDUSTRY | AMONG ALL EMPLOYERS | | | | |
|------------------------------------|---------------------|---------------|--|--|--|
| | Had Difficulty | No Difficulty | | | |
| Ag-Food | 29% | 3% | | | |
| Construction | 32% | 3% | | | |
| High-Tech | 12% | 3% | | | |
| Manufacturing | 16% | 4% | | | |
| Services | 16% | 4% | | | |
| Trade | 23% | 2% | | | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 18% | 12% | | | |
| All Industries | 20% | 5% | | | |
| | | | | | |

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|--|-----------------------|----------------------|--|--|
| Question 7j. Percent Having Difficulty Finding Applicants With Sufficient Ability to Accept Supervision | | | | |
| INDUSTRY | AMONG ALL EMPLOYERS | | | |
| | Had Difficulty | No Difficulty | | |
| Ag-Food | 28% | 3% | | |
| Construction | 21% | 13% | | |
| High-Tech | 9% | 7% | | |
| Manufacturing | 12% | 8% | | |
| Services | 14% | 7% | | |
| Trade | 15% | 11% | | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 15% | 14% | | |
| All Industries | 15% | 10% | | |
| | | | | |
| Question 7k. Percent Having Difficulty Finding Applicants With Sufficient Ability to Adapt to Changes | | | | |
| INDUSTRY | AMONG ALL EMPLOYERS | | | |
| | Had Difficulty | No Difficulty | | |
| Ag-Food | 25% | 6% | | |
| Construction | 18% | 16% | | |
| High-Tech | 11% | 4% | | |
| Manufacturing | 10% | 9% | | |
| Services | 15% | 5% | | |
| Trade | 15% | 9% | | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 21% | 9% | | |
| All Industries | 16% | 8% | | |
| | | | | |
| Question 7l. Percent Having Difficulty Finding Applicants With Sufficient English as a Second Language Skills | | | | |
| | | | | |

| INDUSTRY | AMONG ALL EMPLOYERS | | | | |
|---------------------------------|---------------------|---------------|--|--|--|
| | Had Difficulty | No Difficulty | | | |
| Ag-Food | 12% | 7% | | | |
| Construction | 3% | 12% | | | |
| High-Tech | 4% | 3% | | | |
| Manufacturing | 8% | 3% | | | |
| Services | 2% | 7% | | | |
| Trade | 3% | 14% | | | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 14% | 6% | | | |
| All Industries | 5% | 9% | | | |

Question 8: Which of the following has resulted from your firm's difficulty in finding qualified applicants?

Question 8a. Lowered overall productivity

| INDUSTRY | Number of Employers | Percentage of Employers Among Those With Difficulty | Percentage Among All Employers |
|---------------------------------|---------------------|---|--------------------------------|
| Ag-Food | 1517 | 73% | 26% |
| Construction | 4795 | 82% | 30% |
| High-Tech | 388 | 63% | 11% |
| Manufacturing | 1001 | 56% | 15% |
| Services | 9485 | 41% | 11% |
| Trade | 12151 | 72% | 21% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 5562 | 50% | 17% |
| All Industries | 34899 | 57% | 16% |

Question 8b. Reduced product or service quality

| INDUSTRY | Number of Employers | Percentage of Employers Among Those With Difficulty | Percentage Among All Employers |
|---------------------------------|---------------------|---|--------------------------------|
| Ag-Food | 1172 | 57% | 20% |
| Construction | 3190 | 55% | 20% |
| High-Tech | 289 | 47% | 9% |
| Manufacturing | 429 | 24% | 6% |
| Services | 12973 | 56% | 14% |
| Trade | 8678 | 51% | 15% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 4250 | 38% | 13% |
| All Industries | 30981 | 50% | 14% |

Question 8c. Reduced production output or sales

| INDUSTRY | Number of Employers | Percentage of Employers Among Those With Difficulty | Percentage Among All Employers |
|--|----------------------------|--|---------------------------------------|
| Ag-Food | 1392 | 67% | 24% |
| High-Tech | 431 | 70% | 13% |
| Manufacturing | 1052 | 59% | 15% |
| Services | 12759 | 55% | 14% |
| Trade | 10058 | 59% | 17% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 5790 | 52% | 18% |
| All Industries | 35281 | 57% | 17% |

Question 8d. Prevented firm from expanding its facilities

| INDUSTRY | Number of Employers | Percentage of Employers Among Those With Difficulty | Percentage Among All Employers |
|--|----------------------------|--|---------------------------------------|
| Ag-Food | 826 | 40% | 14% |
| Construction | 2726 | 47% | 17% |
| High-Tech | 319 | 52% | 9% |
| Manufacturing | 277 | 15% | 4% |
| Services | 6301 | 27% | 7% |
| Trade | 2338 | 14% | 4% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 4156 | 37% | 13% |
| All Industries | 16943 | 27% | 8% |

Question 8e. Prevented firm from developing new products/services

| INDUSTRY | Number of Employers | Percentage of Employers Among Those With Difficulty | Percentage Among All Employers |
|--|----------------------------|--|---------------------------------------|
| Ag-Food | 766 | 37% | 13% |
| Construction | 1169 | 20% | 7% |
| High-Tech | 323 | 53% | 10% |
| Manufacturing | 310 | 17% | 5% |
| Services | 5417 | 23% | 6% |
| Trade | 1485 | 9% | 3% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 3223 | 29% | 10% |
| All Industries | 12693 | 21% | 6% |

Question 8f. Caused firm to move some operations out of Washington

| INDUSTRY | Number of Employers | Percentage of Employers Among Those With Difficulty | Percentage Among All Employers |
|--|----------------------------|--|---------------------------------------|
| Ag-Food | 15 | 1% | 0% |
| Construction | 88 | 2% | 1% |
| High-Tech | 169 | 28% | 5% |
| Manufacturing | 75 | 4% | 1% |
| Services | 160 | 1% | 0% |
| Trade | 78 | 0% | 0% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 3 | 0% | 0% |
| All Industries | 588 | 1% | 0% |

Question 9a. Speaks so others can understand

| INDUSTRIES | AMONG ALL EMPLOYERS | | |
|--|----------------------------|----------------------|-----------------------|
| | Had Difficulty | No Difficulty | Not Applicable |
| Ag-Food | 16% | 14% | 6% |
| Construction | 11% | 21% | 5% |
| High-Tech | 5% | 7% | 6% |
| Manufacturing | 6% | 13% | 8% |
| Services | 9% | 14% | 3% |
| Trade | 2% | 17% | 10% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 7% | 23% | 4% |
| All Industries | 7% | 17% | 6% |

Question 9b. Listen actively

| INDUSTRIES | AMONG ALL EMPLOYERS | | |
|--|----------------------------|----------------------|-----------------------|
| | Had Difficulty | No Difficulty | Not Applicable |
| Ag-Food | 23% | 7% | 6% |
| Construction | 16% | 16% | 5% |
| High-Tech | 7% | 5% | 5% |
| Manufacturing | 13% | 6% | 8% |
| Services | 10% | 10% | 5% |
| Trade | 11% | 8% | 9% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 18% | 11% | 4% |
| All Industries | 13% | 10% | 6% |

Question 9c. Read with understanding

| INDUSTRIES | AMONG ALL EMPLOYERS | | |
|--|----------------------------|----------------------|-----------------------|
| | Had Difficulty | No Difficulty | Not Applicable |
| Ag-Food | 17% | 9% | 10% |
| Construction | 13% | 18% | 7% |
| High-Tech | 7% | 5% | 5% |
| Manufacturing | 8% | 7% | 12% |
| Services | 12% | 11% | 3% |
| Trade | 5% | 15% | 9% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 11% | 19% | 4% |
| All Industries | 10% | 14% | 6% |

Question 9d. Observe critically

| INDUSTRIES | AMONG ALL EMPLOYERS | | |
|--|----------------------------|----------------------|-----------------------|
| | Had Difficulty | No Difficulty | Not Applicable |
| Ag-Food | 16% | 10% | 10% |
| Construction | 12% | 15% | 10% |
| High-Tech | 8% | 4% | 5% |
| Manufacturing | 10% | 6% | 10% |
| Services | 15% | 7% | 4% |
| Trade | 13% | 7% | 9% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 12% | 17% | 5% |
| All Industries | 13% | 9% | 6% |

Question 9e. Cooperate with others

| INDUSTRIES | AMONG ALL EMPLOYERS | | |
|--|----------------------------|----------------------|-----------------------|
| | Had Difficulty | No Difficulty | Not Applicable |
| Ag-Food | 21% | 10% | 5% |
| Construction | 14% | 19% | 4% |
| High-Tech | 6% | 6% | 5% |
| Manufacturing | 10% | 9% | 8% |
| Services | 9% | 12% | 5% |
| Trade | 12% | 8% | 9% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 16% | 14% | 4% |
| All Industries | 12% | 11% | 6% |

Question 9f. Resolve conflict and negotiate

| INDUSTRIES | AMONG ALL EMPLOYERS | | |
|---|----------------------------|----------------------|-----------------------|
| | Had Difficulty | No Difficulty | Not Applicable |
| Ag-Food | 20% | 7% | 9% |
| Construction | 16% | 11% | 10% |
| High-Tech | 6% | 6% | 6% |
| Manufacturing | 8% | 5% | 13% |
| Services | 11% | 9% | 6% |
| Trade | 12% | 6% | 10% |
| F.I.R.E. Trans. Wrhs. Util. Gov. | 16% | 12% | 6% |
| All Industries | 13% | 8% | 8% |

Question 9g. Use math to solve problems and communicate

| INDUSTRIES | AMONG ALL EMPLOYERS | | |
|---|----------------------------|----------------------|-----------------------|
| | Had Difficulty | No Difficulty | Not Applicable |
| Ag-Food | 16% | 7% | 12% |
| Construction | 18% | 11% | 8% |
| High-Tech | 4% | 6% | 8% |
| Manufacturing | 13% | 5% | 8% |
| Services | 12% | 8% | 7% |
| Trade | 7% | 8% | 14% |
| F.I.R.E. Trans. Wrhs. Util. Gov. | 8% | 9% | 16% |
| All Industries | 10% | 8% | 10% |

Question 9h. Solve problems and make decisions

| INDUSTRIES | AMONG ALL EMPLOYERS | | |
|---|----------------------------|----------------------|-----------------------|
| | Had Difficulty | No Difficulty | Not Applicable |
| Ag-Food | 25% | 3% | 7% |
| Construction | 23% | 9% | 5% |
| High-Tech | 9% | 4% | 5% |
| Manufacturing | 14% | 5% | 7% |
| Services | 16% | 4% | 6% |
| Trade | 14% | 5% | 10% |
| F.I.R.E. Trans. Wrhs. Util. Gov. | 20% | 7% | 7% |
| All Industries | 17% | 5% | 7% |

Question 9i. Take responsibility for learning

| INDUSTRIES | AMONG ALL EMPLOYERS | | |
|---------------------------------|---------------------|---------------|----------------|
| | Had Difficulty | No Difficulty | Not Applicable |
| Ag-Food | 29% | 2% | 5% |
| Construction | 20% | 12% | 4% |
| High-Tech | 9% | 3% | 6% |
| Manufacturing | 13% | 4% | 9% |
| Services | 20% | 3% | 3% |
| Trade | 14% | 5% | 10% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 22% | 8% | 4% |
| All Industries | 18% | 5% | 6% |

Question 9j. Use information and communications technology

| INDUSTRIES | AMONG ALL EMPLOYERS | | |
|---------------------------------|---------------------|---------------|----------------|
| | Had Difficulty | No Difficulty | Not Applicable |
| Ag-Food | 20% | 5% | 11% |
| Construction | 15% | 12% | 9% |
| High-Tech | 6% | 4% | 7% |
| Manufacturing | 7% | 6% | 13% |
| Services | 9% | 11% | 6% |
| Trade | 10% | 6% | 13% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 12% | 8% | 14% |
| All Industries | 10% | 9% | 10% |

Question 10. How will your firm's need for employees with each type of education change in the next few years?

Q10a. Employees without high school /GED diploma

| For All Firms | Increase | | Stay Same | | Decrease | | Not Needed | |
|---------------------------------|----------|-------|-----------|--------|----------|--------|------------|---------|
| Ag-Food | 4% | 197 | 3% | 2,764 | 3% | 330 | 2% | 2,488 |
| Construction | 11% | 490 | 7% | 6,097 | 4% | 384 | 8% | 8,818 |
| High-Tech | 3% | 132 | 1% | 809 | 1% | 121 | 2% | 2,451 |
| Manufacturing | 8% | 357 | 3% | 2,236 | 3% | 338 | 3% | 3,876 |
| Services | 13% | 568 | 53% | 43,912 | 32% | 3,260 | 36% | 42,222 |
| Trade | 33% | 1,446 | 23% | 19,535 | 20% | 2,029 | 31% | 35,968 |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 27% | 1,197 | 9% | 7,900 | 37% | 3,839 | 17% | 20,062 |
| All Industries | 2% | 4,387 | 39% | 83,253 | 5% | 10,301 | 54% | 115,885 |

Question 10b. Employees With High School /GED Diploma

| For All Firms | Increase | | Stay Same | | Decrease | | Not Needed | |
|------------------------------------|----------|--------|-----------|---------|----------|-------|------------|--------|
| Ag-Food | 12% | 709 | 52% | 3,003 | 3% | 145 | 33% | 1,922 |
| Construction | 16% | 2542 | 53% | 8,376 | 1% | 140 | 30% | 4,731 |
| High-Tech | 11% | 374 | 37% | 1309 | 19% | 663 | 33% | 1,167 |
| Manufacturing | 18% | 1233 | 49% | 3,363 | 3% | 177 | 30% | 2,034 |
| Services | 12% | 10669 | 56% | 50,383 | 0% | 417 | 32% | 28,493 |
| Trade | 5% | 3,170 | 64% | 37,764 | 8% | 4,786 | 22% | 13,258 |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 9% | 2,928 | 53% | 17,455 | 9% | 2,846 | 30% | 9,769 |
| All Industries | 10% | 21,625 | 57% | 121,653 | 4% | 9,174 | 29% | 61,374 |

Question 10c. Employees With Some College Coursework, no Degree

| For All Firms | Increase | | Stay Same | | Decrease | | Not Needed | |
|------------------------------------|----------|--------|-----------|--------|----------|-------|------------|--------|
| Ag-Food | 2% | 572 | 3% | 2,637 | 1% | 128 | 3% | 2,442 |
| Construction | 8% | 2845 | 7% | 6,655 | 2% | 143 | 8% | 6,146 |
| High-Tech | 3% | 922 | 2% | 1972 | 0% | 37 | 1% | 582 |
| Services | 27% | 9290 | 43% | 42,589 | . | . | 53% | 38,083 |
| Trade | 40% | 13,764 | 28% | 27,273 | 71% | 6,051 | 16% | 11,890 |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 18% | 6,297 | 15% | 14,365 | 24% | 2,031 | 14% | 10,305 |
| All Industries | 16% | 34,717 | 46% | 98,038 | 4% | 8,562 | 34% | 72,509 |

Question 10d. Employees With Vocational Certificate

| For All Firms | Increase | | Stay Same | | Decrease | | Not Needed | |
|------------------------------------|----------|--------|-----------|--------|----------|-------|------------|--------|
| Ag-Food | 4% | 1139 | 2% | 1,444 | 6% | 131 | 3% | 3,065 |
| Construction | 11% | 3636 | 6% | 4,618 | 4% | 89 | 8% | 7,446 |
| High-Tech | 3% | 1034 | 2% | 1842 | 2% | 32 | 1% | 605 |
| Manufacturing | 4% | 1301 | 2% | 1,997 | 5% | 106 | 4% | 3,403 |
| Services | 17% | 5402 | 38% | 32,058 | 0% | 8 | 54% | 52,494 |
| Trade | 34% | 11,038 | 34% | 28,211 | 50% | 1,014 | 19% | 18,715 |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 26% | 8,473 | 16% | 13,140 | 32% | 657 | 11% | 10,728 |
| All Industries | 15% | 32,023 | 39% | 83,310 | 1% | 2,037 | 45% | 96,456 |

Question 10e. Employees With Vocational Associate Degree

| For All Firms | Increase | | Stay Same | | Decrease | | Not Needed | |
|------------------------------------|----------|--------|-----------|--------|----------|-------|------------|---------|
| Ag-Food | 4% | 867 | 2% | 1,418 | 4% | 85 | 3% | 3,409 |
| Construction | 13% | 2537 | 6% | 4,407 | 9% | 188 | 7% | 8,657 |
| High-Tech | 5% | 886 | 2% | 1399 | 1% | 32 | 1% | 1,196 |
| Manufacturing | 3% | 621 | 3% | 1,979 | 11% | 239 | 3% | 3,968 |
| Services | 10% | 1937 | 39% | 29,858 | 6% | 135 | 50% | 58,032 |
| Trade | 37% | 7,099 | 32% | 24,902 | 44% | 977 | 22% | 26,000 |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 28% | 5,325 | 17% | 12,796 | 25% | 551 | 12% | 14,326 |
| All Industries | 9% | 19,272 | 36% | 76,759 | 1% | 2,207 | 54% | 115,588 |

Question 10f. Employees With Academic Associate Degree

| For All Firms | Increase | | Stay Same | | Decrease | | Not Needed | |
|------------------------------------|----------|--------|-----------|--------|----------|-------|------------|---------|
| Ag-Food | 2% | 518 | 2% | 1,296 | 16% | 404 | 3% | 3,561 |
| Construction | 9% | 2119 | 5% | 3,337 | 5% | 135 | 9% | 10,198 |
| High-Tech | 4% | 1051 | 2% | 1522 | 0% | 7 | 1% | 933 |
| Manufacturing | 2% | 490 | 3% | 2,030 | 12% | 304 | 3% | 3,983 |
| Services | 9% | 2196 | 37% | 26,317 | 22% | 554 | 52% | 60,895 |
| Trade | 52% | 12,484 | 34% | 23,692 | 36% | 906 | 19% | 21,896 |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 21% | 5,069 | 17% | 12,118 | 8% | 197 | 13% | 15,614 |
| All Industries | 11% | 23,927 | 33% | 70,312 | 1% | 2,507 | 55% | 117,080 |

Question 10g. Employees With BA/BS Degree

| For All Firms | Increase | | Stay Same | | Decrease | | Not Needed | |
|------------------------------------|----------|--------|-----------|--------|----------|-------|------------|---------|
| Ag-Food | 2% | 463 | 2% | 1,038 | 4% | 81 | 4% | 4,197 |
| Construction | 7% | 2044 | 5% | 3,301 | 12% | 228 | 9% | 10,216 |
| High-Tech | 3% | 988 | 2% | 1235 | 1% | 25 | 1% | 1,265 |
| Manufacturing | 1% | 413 | 3% | 1,711 | 20% | 382 | 4% | 4,301 |
| Services | 27% | 7912 | 31% | 20,911 | 11% | 218 | 53% | 60,921 |
| Trade | 35% | 10,231 | 40% | 26,888 | 26% | 487 | 18% | 21,372 |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 25% | 7,205 | 18% | 11,770 | 26% | 488 | 12% | 13,535 |
| All Industries | 14% | 29,256 | 31% | 66,854 | 1% | 1,909 | 54% | 115,807 |

Question 10h. Employees With Master Degree

| For All Firms | Increase | | Stay Same | | Decrease | | Not Needed | |
|------------------------------------|----------|--------|-----------|--------|----------|-------|------------|---------|
| Ag-Food | 1% | 103 | 2% | 965 | 5% | 75 | 3% | 4,636 |
| Construction | 2% | 257 | 6% | 3,576 | 23% | 345 | 8% | 11,611 |
| High-Tech | 3% | 324 | 1% | 741 | 2% | 27 | 2% | 2,421 |
| Manufacturing | 2% | 204 | 2% | 965 | 21% | 307 | 4% | 5,331 |
| Services | 8% | 1001 | 39% | 21,882 | 14% | 214 | 46% | 66,865 |
| Trade | 34% | 4,314 | 35% | 19,171 | 11% | 164 | 25% | 35,329 |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 51% | 6,558 | 15% | 8,175 | 24% | 348 | 12% | 17,917 |
| All Industries | 6% | 12,761 | 26% | 55,475 | 1% | 1,480 | 67% | 144,110 |

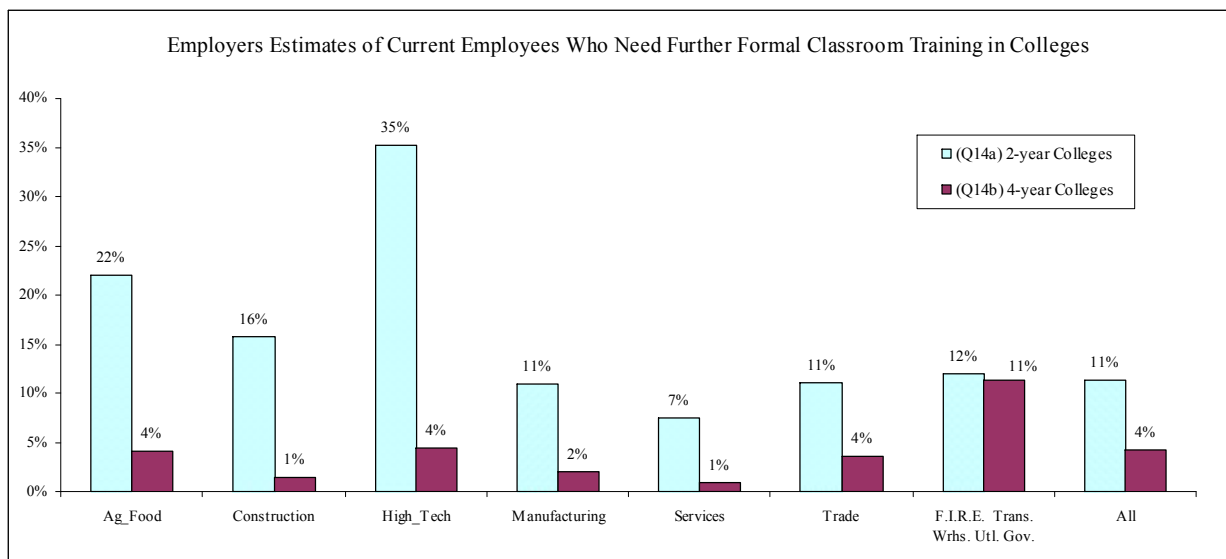
Question 10i. Employees With PhD/Professional Degree

| For All Firms | Increase | | Stay Same | | Decrease | | Not Needed | |
|------------------------------------|----------|-------|-----------|--------|----------|-------|------------|---------|
| Ag-Food | 13% | 250 | 2% | 702 | 3% | 82 | 3% | 4,745 |
| Construction | . | . | 7% | 3,323 | 9% | 270 | 8% | 12,196 |
| High-Tech | 3% | 61 | 1% | 581 | 3% | 97 | 2% | 2,774 |
| Manufacturing | 1% | 22 | 2% | 852 | 11% | 313 | 3% | 5,620 |
| Services | 1% | 11 | 34% | 15,778 | 30% | 846 | 45% | 73,327 |
| Trade | 9% | 170 | 39% | 18,200 | 30% | 858 | 24% | 39,750 |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 73% | 1,374 | 15% | 7,081 | 14% | 388 | 15% | 24,155 |
| All Industries | 1% | 1,888 | 22% | 46,517 | 1% | 2,854 | 76% | 162,567 |

Question 11: In the last three years, have the skills required to adequately perform production or support jobs increased, decreased, or remained the same?

| INDUSTRY | Increase | Stay Same | Decrease | Don't Know | |
|--|-----------------|------------------|-----------------|-------------------|--|
| Ag-Food | 33% | 59% | 1% | 7% | |
| Construction | 32% | 54% | 2% | 12% | |
| High-Tech | 54% | 29% | 1% | 16% | |
| Manufacturing | 29% | 50% | 5% | 16% | |
| Services | 18% | 67% | 1% | 13% | |
| Trade | 49% | 38% | 7% | 6% | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 44% | 46% | 3% | 7% | |
| All Industries | 33% | 54% | 3% | 10% | |

| INDUSTRY PRACTICE IN JOB RELATED TRAININGS FOR EMPLOYEES | Classroom Training, Workshop, Seminar | | | | |
|---|---|---|---------------------------------------|---|---------------------------------------|
| | for Any Type of Classroom Training (Q12) | in Work- Place Practices (Q21) | for Basic Skills (Q22) | in Job Specific Skills (Q23) | for Any Employee (Q26) |
| Ag-Food | 35% | 24% | 5% | 32% | 14% |
| Construction | 40% | 27% | 2% | 31% | 16% |
| High-Tech | 45% | 17% | 10% | 44% | 27% |
| Manufacturing | 32% | 21% | 4% | 22% | 11% |
| Services | 22% | 16% | 5% | 20% | 14% |
| Trade | 73% | 48% | 15% | 66% | 35% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 57% | 38% | 11% | 46% | 28% |
| All Industries | 44% | 29% | 8% | 38% | 22% |



| INDUSTRY PRACTICE IN JOB RELATED TRAININGS FOR EMPLOYEES | Classroom Training, Workshop, Seminar | | | | Tuition Reimbursement | | On-the-Job Training was in a Written Plan or an Agreement (Q29) |
|--|---------------------------------------|-------------------------------|------------------------|------------------------------|------------------------|---|---|
| | for any Employee (Q12) | in Work-Place Practices (Q21) | for Basic Skills (Q22) | in Job Specific Skills (Q23) | for any Employee (Q26) | Restricted to Job-Related Training Only (Q28) | |
| Ag-Food | 35% | 24% | 5% | 32% | 14% | 33% | 16% |
| Construction | 40% | 27% | 2% | 31% | 16% | 31% | 14% |
| High-Tech | 45% | 17% | 10% | 44% | 27% | 41% | 16% |
| Manufacturing | 32% | 21% | 4% | 22% | 11% | 18% | 12% |
| Services | 22% | 16% | 5% | 20% | 14% | 21% | 9% |
| Trade | 73% | 48% | 15% | 66% | 35% | 70% | 40% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 57% | 38% | 11% | 46% | 28% | 44% | 26% |
| All Industries | 44% | 29% | 8% | 38% | 22% | 40% | 20% |

Question 15: In the last three years, has the percentage of your employees who received classroom training, workshops, or seminars of some kind increased, decreased, or remained the same?

| INDUSTRY | Increase | Stay Same | Decrease | Don't Know | |
|---------------------------------|----------|-----------|----------|------------|--|
| Ag-Food | 34% | 55% | 2% | 9% | |
| Construction | 40% | 44% | 1% | 15% | |
| High-Tech | 28% | 67% | 1% | 4% | |
| Manufacturing | 25% | 62% | 6% | 7% | |
| Services | 22% | 67% | 2% | 9% | |
| Trade | 30% | 58% | 5% | 8% | |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 34% | 49% | 8% | 9% | |
| All Industries | 29% | 58% | 4% | 9% | |

| INDUSTRY PRACTICE IN JOB RELATED TRAININGS FOR EMPLOYEES | Classroom Training, Workshop, Seminar | | | | |
|---|---------------------------------------|--|------------------------------|--|------------------------------|
| | for any Employee (Q12) | in Work- Place Practices (Q21) | for Basic Skills (Q22) | in Job- Specific Skills (Q23) | for any Employee (Q26) |
| Ag-Food | 35% | 24% | 5% | 32% | 14% |
| Construction | 40% | 27% | 2% | 31% | 16% |
| High-Tech | 45% | 17% | 10% | 44% | 27% |
| Manufacturing | 32% | 21% | 4% | 22% | 11% |
| Services | 22% | 16% | 5% | 20% | 14% |
| Trade | 73% | 48% | 15% | 66% | 35% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 57% | 38% | 11% | 46% | 28% |
| All Industries | 44% | 29% | 8% | 38% | 22% |

Percent of Employers That Provided Various Trainings for at Least Four Hours, or Had a Tuition Reimbursement Program, or a Written Plan for on-the-Job Training, in the Last 12 Months

| INDUSTRY PRACTICE IN JOB RELATED TRAININGS FOR EMPLOYEES | Classroom Training, Workshop, Seminar | | | | Tuition Reimbursement | | On-the- Job Training was in a Written Plan or an Agreement (Q29) |
|---|--|--|---------------------------------|--|------------------------------|--|---|
| | for any Employee (Q12) | Among those firms which provided training to any employee (Q12="Yes") | | | | | |
| | | in Workplace Practices (Q21) | for Basic Skills (Q22) | in Job- Specific Skills (Q23) | for any Employee (Q26) | Restricted to Job-Related Training Only (Q28) | |
| Ag-Food | 35% | 69% | 13% | 91% | 38% | 92% | 45% |
| Construction | 40% | 69% | 5% | 79% | 41% | 77% | 34% |
| High-Tech | 45% | 39% | 21% | 97% | 59% | 90% | 36% |
| Manufacturing | 32% | 66% | 12% | 70% | 35% | 56% | 39% |
| Services | 22% | 73% | 22% | 91% | 65% | 98% | 40% |
| Trade | 73% | 66% | 21% | 90% | 48% | 96% | 54% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 57% | 68% | 20% | 82% | 49% | 77% | 46% |
| All Industries | 44% | 67% | 19% | 88% | 50% | 91% | 47% |

**All
Employers:**

| INDUSTRY PRACTICE IN JOB RELATED TRAININGS FOR EMPLOYEES | Classroom Training, Workshop, Seminar | | | | Tuition Reimbursement | | On-the-Job Training Was in a Written Plan or an Agreement (Q29) |
|---|---------------------------------------|---|---------------------------------|---------------------------------------|------------------------------|--|---|
| | for Any Employee (Q12) | in Work- Place Practices (Q21) | for Basic Skills (Q22) | in Job Specific Skills (Q23) | for Any Employee (Q26) | Restricted to Job-related Training Only (Q28) | |
| Ag_Food | 35% | 24% | 5% | 32% | 14% | 33% | 16% |
| Construction | 40% | 27% | 2% | 31% | 16% | 31% | 14% |
| High-Tech | 45% | 17% | 10% | 44% | 27% | 41% | 16% |
| Manufacturing | 32% | 21% | 4% | 22% | 11% | 18% | 12% |
| Services | 22% | 16% | 5% | 20% | 14% | 21% | 9% |
| Trade | 73% | 48% | 15% | 66% | 35% | 70% | 40% |
| F.I.R.E. Trans. Wrhs. Utl. Gov. | 57% | 38% | 11% | 46% | 28% | 44% | 26% |
| All Industries | 44% | 29% | 8% | 38% | 22% | 40% | 20% |